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Application No.:

98 932 436.3

Patent No.:

EP-B-0998539

Minutes of the oral proceedings before the OPPOSITION DIVISION

The proceedings were public.

Proceedings opened on 01.03.2005 at 9.00 hours

Present as members of the opposition division:

Chairman: Contet, F
1st member: olde Schepers, B
2nd member: Lanz, S
Minute writer: Lanz, S

Present as or for the party or parties:

- For the Proprietor(s): Rhodia Limited
Mr. J. Benson accompanied by Mr. Ricallens, Mr. S. Raynor, Mr. O. Chambers, Mr. G. Merfield, Mr. P. Sanders
- For the Opponent 1: Solvay (Société Anonyme)
Mr. S. Mross

The identity of the person/s (as well as, if applicable, that of the witness or witnesses) and, where necessary, the authorisation to represent/authority to act were checked.

Essentials of the discussion and possible relevant statements of the parties:

After deliberation of the opposition division,

- the chairman announced the following **decision**:

"Account being taken of the amendments made by the patent proprietor during the opposition proceedings, the patent and the invention to which it relates are found to meet the requirements of the European Patent Convention. The currently valid documents are those according to the Annex C1.

The party/parties was/were informed that the minutes of the oral proceedings and a written reasoned decision (including an indication of the possibility of appeal) will be notified to him/hem as soon as possible.

The chairman closed the oral proceedings on 01.03.2005 at 17.00 hours.



signed:

Contet, F

.....
Chairman

signed:

Lanz, S

.....
Minute Writer

Enclosure(s):

Annex A1-A5,B1-B5,C1,C2
Form 2339.4

Documents for the maintenance of the patent as amended

Description, Pages

1, 2, 3, 3a, 3b, 4-6 filed during Oral proceedings on 01.03.2005

Claims, Numbers

1-9 filed during Oral proceedings on 01.03.2005



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1. The Chairman opened the Oral Proceedings at 9.00.

2. Requests

- 2.1. The Proprietor requested the maintenance of the patent in amended form according to the new main request filed during Oral Proceedings (see Annex A1) or the first to the fourth auxiliary request filed during the Oral Proceedings (see Annex A2-A5, (A3 without amendments)) or the fifth and sixth auxiliary request filed with the letter of 30.12.04, resp. 10.02.05 (retyped copies).
- 2.2. The Opponent maintained his request of revocation of the whole patent for the grounds stated in the letter of Opposition of 08.07.03.

3. Rule 57a EPC

The Opposition Division stated that claims 13,14,17 of the main request (see Annex A1), claim 15 of the first auxiliary request (see Annex A2), claims 7,8 of the second auxiliary request (see Annex A3-without amendments introduced during Oral Proceedings), claims 4,5 of the third auxiliary request (see Annex A4), claims 4,5 of the fourth auxiliary request (see Annex A5), claims 3,4 of the fifth and claim 2 of the sixth auxiliary request are not in agreement with Rule 57a EPC, because the amendments are not occasioned by grounds for opposition.

Claims 13 and 14 of the main request (see Annex A1) are claims related to specific compositions disclosed in the description and claim 17 is directed to the use of the refrigeration composition as a refrigeration composition able to replace chlorodifluoromethane.

The Patent Proprietor deleted claims 7,8 and 12 (which is dependent on claim 8) of the second auxiliary request (see amendments of Annex A3) and argued that the amendment of claim 17 of the main request (see Annex A1) is justified because it is just a correction of an obvious mistake.

4. The Oral Proceedings were interrupted from 9.50-10.10.

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- 5. The Chairman announced that the main request (see Annex A1) is not in accordance with Rule 57a EPC and that the first auxiliary request (see Annex A2) is in accordance with Rule 57a EPC.
- 6. The Patent Proprietor then filed five new auxiliary requests taking into account the Rule 57a objection (see Annex B1-B5) to substitute the present second to sixth auxiliary requests.
- 7. **Article 123(2)/(3) EPC**

The Chairman set up the following three criteria regarding this Article:

- (a) is it allowable under Article 123(2) EPC to construct in claim 1 of the first auxiliary request (see Annex A2) a new range for the amount of a component (claim 1: component (i): 30-50 weight-%; component (ii): 1-4 weight-%) from two lower ends of ranges disclosed in the PCT-application (component (b) (corresponds to component (i)): 30-94 wt.-%, 50-90 wt.-%, 75-90 wt.-%; (component (c) (corresponds to component (ii)): 1-10 wt.-%, 1-8 wt.-%, 2-6 wt.-%, 2-5 wt.-%, 3-4 wt.-%, 3.5 wt.-%),
- (b) is it allowable to combine two generated ranges of two components in a claim and
- (c) is it allowable that the sum of the amounts of components (i)-(iii) of claim 1 of the first auxiliary request does not add up to 100 wt.-%, as did components (i)-(iii) of claim 1 of the PCT-application ($5+94+1 = 100$; $60+30+10 = 100$).

The Patent Proprietor stated that the construction of ranges for example from two lower ends is allowed and referred to decision T02/81 (a), that the combination of two components with ranges constructed according to T02/81 is also allowable because the combination of the components is generally disclosed in the PCT-application without any limitations and that furthermore example 1 of the application is within the scope of claim 1 of the first auxiliary request (b). The Patent Proprietor stated that it is not necessary that the end points of the ranges of the three components add up to 100 wt.-% (c).

The Opponent denied the allowability of amendments according to the criteria (a)-(c) and added that claim 4 of the first auxiliary request also discloses a combination of two components with newly constructed ranges and that the upper limit of component (iii) is missing. The term "able to replace chlorodifluoromethane" of claim 15 would introduce



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new subject-matter because the compositions of the PCT-application are used as a replacement for chlorodifluoromethane (R22) and dichlorodifluoromethane (R12).

The Patent Proprietor said that the missing upper limit of claim 4 of the first auxiliary request was a mistake and that he would delete claim 4 and its dependent claims 5 and 6 and that the examples of the application show different compositions for replacing R22 and R12.

8. The Oral Proceedings were interrupted from 10.55-11.20.
9. The Chairman announced that the first auxiliary request (see Annex A2) is not in agreement with Article 123(2) EPC because claim 1 relates to a combination of components present in newly constructed ranges and because claim 15 concerns a specific use of a specific combination of components in specific ranges.
10. The Oral Proceedings were interrupted from 11.45-12.55.
11. The Patent Proprietor filed a new second auxiliary request (see Annex C1, without amendments of the description) to replace the former secondary auxiliary request), and a seventh auxiliary request (see Annex C2). He then withdrew the second to sixth auxiliary requests filed during the oral proceedings (see Annex B1-B5).
12. The Opponent argued that claim 1 of the second auxiliary request (see Annex C1) is not in agreement with Article 123(2) EPC because it is a generalisation of example 1 and because the new constructed range of component (ii) is combined with a specific element (R125; pentafluoroethane) of component (iii). Furthermore in claim 7 the use of isobutane is not excluded anymore from the composition.
13. The Oral Proceedings were interrupted from 13.25-13.45.
14. The Chairman announced that claim 1 of the secondary auxiliary request (see Annex C1) is in accordance with Article 123(2) EPC.
15. The Opponent was of the opinion that claim 7 of the secondary auxiliary request is not



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in agreement with Article 123(2) EPC because the term "as a replacement for chlorodifluoromethane" of claim 16 as granted was deleted from the part concerning components (ii) and (iii) and added next to the term "composition".

16. The Chairman announced that the secondary auxiliary request (see Annex C1) is in accordance with Article 123 (2) and (3) EPC.
17. **Admissability of document D1**

The Opponent argued that document D1 is admissible because the e-mail (see document D9) of the secretary of the conference (see document D10) shows that document D1 was distributed at the beginning of the conference (see also document D11) and therefore before the filing date of the present patent.

The Patent Proprietor argued that the question sent by Solvay was not properly formulated, that it is not certain that indeed Ms. Freeman answered the e-mail and that it is not certain whether Ms. Freeman was already the secretary of the conference in 1998. Furthermore the answer given is rather general and not written in the past but in the present ("are" instead of "were") and not giving any details (e.g. confidentiality, distributor, recipients). Furthermore document D2 (Proceedings of the Perdue conference of July 1996) arrived at the library in March 1997 (see stamp at page 1), which could be a sign that the Proceedings of the Perdue Conference of 1996 were not distributed upon registration.

18. The Oral Proceedings were interrupted from 14.15-14.30.
19. The Chairman announced that document D1 is not admitted to the Opposition Proceedings.
20. **Novelty (Article 54 EPC)**

The Opponent argued that table 3 of document D2 discloses a composition comprising 46 % by weight of R125 (pentafluoroethane), 4% of R600a (isobutane) and therefore 50% by weight of R134a (1,1,1,2-tetrafluoroethane) (see page 3, last paragraph (chapter



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4.1) of document D2). Table 1 discloses that n-butane (R600) is also a possible blend component. Furthermore document D2 (see page 2, fifth and sixth paragraph) teaches the use of hydrocarbons in a refrigerant composition comprising R125 and R134a.

The Patent Proprietor stressed that n-butane has to be chosen from a list of at least four hydrocarbons.

21. The Oral Proceedings were interrupted from 15.10-15.25.
22. The Chairman of the Opposition Division announced that the second auxiliary request (see Annex C1) is novel over document D2.
23. **Inventive Step (Article 56 EPC)**

Both the Patent Proprietor and the Opponent considered document D2 to be closest prior art.

The problem of the present patent was according to the Patent Proprietor primarily to provide low flammability of the refrigerant composition upon leakage and secondarily to improve the cooling efficiency of the composition. The problem was solved by substituting isobutane by n-butane. The composition according to example 1 of the present patent shows no flammability upon leakage according to ASTM E 681-85. The composition of example 2, which corresponds to a composition according to document D2, is flammable according to the ASTM norm. Furthermore the coefficient of performance of a composition comprising n-butane is better than of a composition comprising isobutane.

The Opponent said that there are different tests available for measuring flammability and that the improvement in efficiency is rather small.

The Opponent further argued that the solution of the problem would be obvious by combining document D2 with document D3, because in compositions according to document D3 n-butane is preferred over isobutane (see document D3: page 3, lines 44,45). Document D3 would also address the problem of flammability at leakage (see

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page 3, lines 57-59).

The Patent Proprietor stressed that document D3 concerns near-azeotropic compositions. But the compositions of the present patent are zeotropic compositions and not near-azeotropic compositions (see document D12, table 2). Furthermore computer programs predicted that compositions comprising n-butane would be flammable (see PCT application: page 2, lines 5-9).

- 24. The Oral Proceedings were interrupted from 16.35-16.45.
- 25. The Chairman announced that the subject-matter of the second auxiliary request (see Annex C1) involves an inventive step.

26. Article 83 EPC

The Opponent said that he filed all arguments concerning Article 83 EPC with his letter of opposition of 08.07.2003.

- 27. The Proprietor adapted the description to the claims (see amendments of the description of Annex C1). The Opponent had no objection against the adapted description.
- 28. The Chairman announced that the patent is maintained in amended form (see Annex C1) according to Article 102(3) EPC.
- 29. The Oral Proceedings were closed at 17.00.